

ANALYSIS OF PEF PORTFOLIO COMPANY HIRING PROCESS AND ITS EFFECTIVENESS IN PREDICTING INDIVIDUAL EXECUTIVE PERFORMANCE

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WHAT DID I LEARN?

The time and energy you spend on collecting the information provided to me is wasted unless that information is used somehow in an informal way that adds some value. Virtually none of the ratings or rankings have any statistically significant effect on whether the selected person performed well or poorly, and those measures that do seem to have predictive power do not predict what you would expect. In addition, the managers you select for positions appear indistinguishable (based on the data provided) from those you chose not to hire. Although the data provide no evidence of any link between your independent variables and the dependent variable, the process you currently follow is clearly superior to no process.

SO WHAT?

I recommend that you:

1. Save the money you spend on this process
2. Understand, specifically for PEF, what are the competencies required of portfolio executives and how you can recognize, in an interview or assessment situation, that a manager either has or does not have the competency.
3. Develop a new hiring approach, and track and test results from that process to refine it over time
 - a. Use a test of cognitive ability as a screening tool
 - b. Use "behavioral anchors" (descriptions of the behaviors that demonstrate a competency) to consistently measure the competencies
 - c. Focus on the competencies that you believe are most critical to success

STEPS TO GET STARTED (NOW WHAT)

1. Discussion to develop set of competencies and anchors that are highly relevant to PEF portfolio company success.
2. Observation of behavioral interviews conducted by PEF on prospective portfolio executives.
3. Interview training to elicit evidence efficiently within the body of the interview of those competencies that will actually contribute to the manager's success.
4. Training and calibration to ensure that competencies are rated consistently across interviewers and the results recorded in a manner that permits subsequent analysis of the relationship between competencies demonstrated within the behavioral interview and the outcome measures of performance.
5. Conceptualization of an effective process for inputting and tracking input measures and performance measures, including monitoring through monthly discussions with managers about key relationships that are integral to the manager's successful performance.

In the remainder of this report, I will outline the details of the statistical analysis supporting the conclusions above.

DETAILED REPORT ON STATISTICAL ANALYSIS AND FINDINGS

GOALS

This analysis had two goals.

1. To determine what individual factors drive performance outcomes among the executives hired for The Private Equity Firm (“PEF”) portfolio companies using the data PEF has already gathered on its portfolio company executives. This data included all the measures used in its current hiring.
2. To figure out how PEF can make its hiring process more efficient and to increase predictive accuracy.

HIGH-LEVEL SUMMARY OF STATISTICAL RESULTS AND FINDINGS

Overall the data that exist do not predict performance outcomes. Among all the scores from the DDI behavioral simulations, the two Hogan inventories (the “LEI” – DDI’s privately-labeled Hogan Personality Inventory measuring “Bright Side” personality traits and the “LCI” – DDI’s privately-labeled Hogan Development Survey, measuring “Dark Side” traits, considered indicators of career derailers), the Watson Glaser, and the PEF interview, only three variables were significantly correlated with performance and in an unexpected direction.

- One of the 15 DDI competencies (Entrepreneurship) was negatively correlated with performance.
- One of the 15 PEF Competencies (Entrepreneurship) was negatively correlated with performance.
- One of the 18 Hogan personality variables (Risk Averse) was significantly positively correlated with performance.

It appears that the process PEF uses currently is not well understood or well controlled.

STUDY METHOD

Setting and Population

Data for this study were taken from information The Private Equity Firm had on candidates it had assessed and hired or retained as employees in its portfolio companies during its first and second funds. The sample size is 47 executives. CEO and CFO candidates were examined.

Participant characteristics. The criteria for participating in the study was that the person:

- Either occupied or was considered for a CEO or CFO role in a PEF portfolio company, and
- Was retained in that role when no new leadership was deemed necessary or was hired for that role, and

- Was assessed using the standard PEF assessment process (behavioral interviews conducted by PEF against 15 competencies, DDI assessments against 15 competencies).

Three women and 44 men met these criteria and data about them was used in the study. One woman was considered for the role of CEO and two for a CFO role.

Assessment Process

PEF interviews candidates surfaced by executive recruiters who fit the criteria for the role. PEF uses a standard behavior interview procedure designed to differentiate potential high performing candidates from their less competent counterparts. PEF scores candidates on 15 competencies. Before or after PEF interviews candidates, candidates undergo a behavioral assessment conducted by an international leadership assessment firm (“DDI”). Candidates then spend a week at the portfolio company and present to PEF at the end of that week a plan for executing PEF’s value creation plan. PEF makes its final selection following these presentations.

Personal (Independent) Variables

Four assessment instruments provided measures: PEF’s behavioral interviews yielding competency ratings; DDI’s behavioral simulations, the Watson Glaser, and the two Hogan measures of personality, the Hogan Personality Inventory and the Hogan Developmental Survey, which DDI claims help shape final ratings usually against the same 15 competencies that PEF rates. These are the independent or predictor variables in the study.

Performance (Dependent) Variables

PEF rated each participant on 10 factors, each relating to different dimensions of leadership on ten 5-point likert-type scales ranging from 1 (low) to 5 (high). The scales were: Execution, Dependability and Organizational Support, Judgment and Decision Making, Leadership and Initiative, Teamwork, Continuous Improvement/ Self Development, Building Relationships, Communication, Equity Value Creation, and Annual Objectives. As shown in [Table 2](#), the correlations between each of these 10 scales were in the same direction and within a reasonable magnitude (ranging from .253 to .890); most were correlated at a significant level ($p < .01$). Therefore, the scales were combined to form a single holistic measure of performance, Total Outcome. The 10 competencies were differentially weighted (with Execution, Equity Value Creation, and Annual Objectives weighted twice in this procedure) and summed to produce a final outcome measure ranging from 13 to 65. [Table 1](#) reports the descriptive statistics for the independent and dependent variables in the study.

Procedure

The data were collected, prepared, and cleaned. Because DDI changed its assessment platform in late 2012, two competencies that had been assessed using the Platform 2 (DDI’s pre-2013 platform) but are not assessed using the current platform were excluded from analysis, yielding 15 competencies. PEF also assessed candidates against 15 competencies. In theory PEF used the same definition of these competencies that DDI used.

Research Questions

1. Do the Hogan measures of personality correlate with performance outcomes? Do the inter-correlations between the Hogan scales indicate that a combination of scales might predict performance outcomes?
2. Do Watson Glaser scores correlate with performance outcomes? Do they affect DDI competency ratings?

3. Do the DDI competency measures correlate with performance outcomes? Do the DDI competencies appear to be independent variables or are portions of the variability shared by identifiable factors?
4. Do the PEF interview measures correlate with performance outcomes? Do the PEF interview measures appear to be independent variables or are some of the areas assessed likely tapping one factor?
5. What is the relationship between DDI competency ratings and PEF competency ratings?
6. Do the candidates PEF decided not to hire differ significantly from those PEF hired or retained?

FINDINGS

Almost no Hogan measures correlate with performance outcomes

One research question whether the Hogan “Bright Side” and Hogan “Dark Side” measures of personality (the LEI and LCI) predict performance effectiveness. In general, these measures appear to be unrelated to performance effectiveness. As reported in [Table 3](#), the descriptive statistics and scale inter-correlations for this portion of the data do not exhibit any patterns that suggest further analysis would make sense. Consequently, I did not pursue further conceivable analysis, such as testing combinations of scales within the Hogan surveys and their relationship with the performance variable.

Only one of the Hogan variables (on the Hogan Developmental Survey) had a positive and significant correlation with the dependent variable: Risk Averse ($r = .448$, $p < .05$). Hogan describes individuals who score high on this scale as “cautions” “risk averse, resistant to change, slow to make decisions.” The correlation is unexpected.

Watson Glaser does not predict outcome and influences only one DDI competency rating

The Watson Glaser was not correlated with Total Outcome. See [Table 4](#). The WG influenced only one DDI competency. As shown in [Table 5](#), the WG was correlated negatively with Coaching and Developing Others ($r = -.366$, $p < .05$). Otherwise there was no relationship between the WG and the DDI competency ratings.

DDI Competencies do not predict outcomes (with one counter-intuitive exception)

Another research question was to what degree the DDI competency ratings correlate with Total Outcome. As reported in [Table 6](#), only one competency, Entrepreneurship, was significantly correlated with Total Outcome and the direction was negative ($r = -.474$, $p < .05$). The small size of the correlation coefficients and the fact that only one correlation was statistically significant indicated that the results of a factor analysis would be meaningless.

PEF Competencies also do not predict outcomes (with one counter-intuitive exception)

Another question concerned the degree to which the PEF competency ratings correlate with Total Outcome. As reported in [Table 7](#), only one competency, Entrepreneurship, was significantly correlated with Total Outcome and the direction was negative ($r = -.797$, $p < .05$). Again, the small size of the correlation coefficients and the fact that only one correlation was statistically significant indicated that the results of a factor analysis would be meaningless.

DDI Competency ratings and PEF behavioral interview ratings appear unrelated

The relationship between DDI competency ratings and PEF ratings on those competencies was also examined. [Table 8](#)

reports the inter-correlations between DDI and PEF competency ratings. Competencies that in theory should be correlated were in fact not –no statistically significant relationships between the DDI competency and the corresponding PEF competency obtained. In fact, there was zero correlation between DDI’s Leading Change competency and PEF’s Change Leadership competency. PEF assesses “Building Organizational Talent” and “Team Building” and does not assess “Coaching and Developing Others” which is one competency that DDI assesses but neither of these two PEF variables that one might suspect would correlate with Coaching and Developing Others had a significant correlation with DDI’s Coaching and Developing Others.

The Pass Group (those managers who were not hired) does not differ statistically from the managers who were hired

One hypothesis was that the participants PEF decided not to hire (Hiring Decision = Pass) would differ in a meaningful way from everyone else in the sample. This hypothesis was tested using T-tests of the mean differences between those whom PEF decided to pass on and the others using the Hogan scales, the DDI competency ratings, and Watson Glaser scores. The T-test comparing means of those whom PEF decided not to hire to everyone else showed no significant differences between the means of these two groups.

WHAT DOES THIS ALL MEAN?

This analysis did not prove that there is no connection between the data provided and the outcomes – only that no evidence exists that there is a connection. It could be that there is no link. It could be that the samples are too small to be able to detect statistical significance. It could be that the methods of generating values for the PEF competency variables and/ or the DDI competency variables are so poor that even though an underlying relationship between the true value of the competency and outcomes may exist, we cannot see it because we mis-measure the competencies.

WHAT TO DO INSTEAD

Continuing to hire based on the information assessed in this analysis is an act of faith – that the relationships between these variables and performance are real, even though there is no evidence found to support that belief. That is one option; a better option might be to make some changes that also lack evidence but that seem more likely to generate good results.

1. PEF should use a competency model that actually models the jobs PEF needs executives to perform.
2. PEF should improve the reliability of its competencies ratings by using a structured interview process with behavioral anchors for rating candidates on those competencies deemed necessary for performing successfully in the role. Interviewers need to be trained to do the interviews and overseen to ensure that they reach decisions on all of the relevant competencies.
3. PEF should use a measure of complexity of information processing as an initial screen, to weed out managers who are not capable cognitively of handling the work the role actually requires.
4. PEF should discuss with DDI how it will improve:

- a. DDI's competency models so they are tailored to the actual work of effectively leading an PEF portfolio company, and not generic competencies relevant to and related to generic managers and
- b. DDI's ability to accurately measure those competencies.

If the models and measures cannot be significantly improved, then PEF is spending money without receiving anything useful in return.

SUMMARY AND CONCLUSION

This study looked at how well executive performance correlated with evaluations of individual executives' competencies, intelligence, and personality from four separate sources: PEF interviews, assessment center-generated competency ratings generated by DDI, Hogan personality surveys administered by DDI, and the Watson Glaser. Only three measures of personality and competency were correlated significantly with performance outcomes.

Noteworthy, both the DDI and the PEF measures of Entrepreneurship were significantly but negatively correlated with the outcome measure of performance. Given that Entrepreneurship is a desirable attribute in an executive leading a private equity portfolio company, that finding is a surprise. It is also surprising that one of the "Dark Side" traits assessed by the Hogan, a measure of Risk Aversion, was positively correlated with performance. More subjects and more reliable measures are needed in order to establish how reliable this finding is.

One reason correlations were used in this study was to examine each source of competency evaluation (i.e., DDI and PEF) in order to see if enough correlational evidence existed to support structural equation modeling. The findings indicate it does not. Structural equation modeling would be possible once PEF has a solid conceptual model, reliable assessment methods, and operational measures derived from the model that reliably predict performance outcomes.